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EXAMINER

ZHEN, LI B

ART UNIT

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2194

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/740,487	Applicant(s) WANG BALDONADO ET AL.	
	Examiner LI B. ZHEN	Art Unit 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-7,11,13,17,20-23,27,28 and 36-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-7,11,13,17,20-23,27,28 and 36-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/25/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1, 4-7, 11, 13, 17, 20-23, 27, 28 and 36-39 are pending in the application.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/18/2008 has been entered.

Response to Arguments

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. **Claims 17, 20 – 23, 27, 38 and 39 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

Claims 17 and 27 recite an apparatus comprising a client and a service provider, respectively, which are software. Currently presented claims 17 and 27 do not include

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any computer hardware; therefore, the apparatus as recited in claims 17 and 27 are considered to include software only. Computer software is functional descriptive material; however, function descriptive material is nonstatutory when claimed as descriptive material per se, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Since claims 17 and 27 do not recite the software as being recorded on a computer-readable medium, the apparatus are interpreted as comprising functional descriptive material per se and non statutory. See MPEP § 2106.01. It is also noted that dependent claim 28, which depends from claim 27, is statutory because the dependent recites the service provider as operating on a machine.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 4-7, 11, 13, 17, 20-23, 27, 28 and 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,253,369 to Cloud et al. [hereinafter Cloud, previously cited] in view of U.S. Patent No. 5,995,721 to Rourke et al. [hereinafter Rourke].

9. As to claim 1, Cloud teaches the invention substantially as claimed including a method for preparing a job for execution by a batch job execution system [batch work flow object generation process; col. 18, lines 51 – 58] in parallel [one or more units of work that may be dispatched to execute substantially concurrently; col. 10, lines 5 – 13], comprising:

receiving a job from an external source [Receives or retrieves request messages, depending on task initiation; col. 8, lines 42 – 47], wherein the job includes at least one task [decompose the message received and invoke several tasks; col. 11, lines 29 – 42];

selecting a program, subsequent to receiving the job [workflow object which can be selectively incorporated in workflows to satisfy a request from a client; col. 6, lines 30 – 49], which includes a declarative part [work flow object definition; col. 18, lines 51 – 58] and a procedural part [source code skeleton consistent with its particular function

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which is used as the infrastructure for creation of object source code; col. 18, lines 8 – 21];

preparing a batch job by associating the selected program with the job [workflow Manager will associate the Request with a workflow; col. 12, lines 3 – 17]; and

transmitting the batch job toward the batch job execution system [individual requests which make up the profile of the request from the client are then processed by the work flow manager environment where they are individually packaged for sending to the back-end servers; col. 13, lines 40 – 60];

wherein the declarative part identifies data dependencies between individual tasks [col. 10, lines 5 – 13], and further includes a description of work to be performed [col. 18, lines 50 – 60], references to resources needed to perform particular tasks [map storage areas to data elements and structures (principally in the session control block), for uses by work flows; col. 14, lines 50 – 60], and delegations of authority to access the resources and perform operations [data definition capabilities over the user accessible item areas; col. 11, lines 5 – 18];

wherein the procedural part contains logic enabling the batch job execution system to perform execution of individual tasks separately [source code skeleton consistent with its particular function which is used as the infrastructure for creation of object source code; col. 18, lines 8 – 21], in parallel [col. 10, lines 5 – 13]; and

wherein the procedural part does not know about the scheduling contained in the declarative part [To complete a complex unit of work, the work flow will decompose the message received and invoke several tasks to independently retrieve information from

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whatever different sources are necessary; col. 11, lines 29 – 42]. Although Cloud teaches the invention substantially, Cloud does not specifically teach specifying additional steps that must be completed after the procedural part completes before a particular task is considered to have completed and the declarative part scheduling a plurality of tasks to be performed.

However, Rourke teaches a job execution managing apparatus [processing system 10, Fig. 1; col. 6, lines 43 – 60], receiving a job request [print jobs; col. 6, lines 43 – 60], preparing job information [job level attribute information; col. 9, line 65 – col. 10, line 10], specifying additional steps [one portion of the job may be delivered to a full process color printer (document processing unit 1) and another portion may be delivered to a black/white printer with accent color capability; col. 12, line 62 – col. 13, line 10] that must be performed after the procedural part completes before a particular task is considered to have completed [deliver both the black/white prints and accent colored prints to a job integrator; col. 12, line 62 – col. 13, line 10], a declarative part of an application that schedules a plurality of tasks to be performed [reflecting which queues are capable of executing at least a portion of the job based on image level attributes; col. 10, lines 10 – 40], and a procedural part of an application that contains logic enabling the batch job execution system to perform execution of independent individual tasks separately [document processing unit(s) mapped to the single queue(s) is suitable for executing the job, Fig. 12; col. 10, lines 10 – 40].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Cloud to incorporate the features of

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Rourke. One would have been motivated to make the combination because this allows a client to deliver a job to a server which analyzes the job, in a manner that is transparent to the client, and, when necessary, partitions the job for delivery to multiple printers [col. 14, lines 3 – 16 of Rourke].

10. As to claim 11, Cloud as modified teaches a method for preparing and executing a task of a batch job by a batch job execution system [batch work flow object generation process; col. 18, lines 51 – 58 of Cloud], comprising the steps of:

receiving the task of the batch job which is to be executed by a service provider [Receives or retrieves request messages, depending on task initiation; col. 8, lines 42 – 47 of Cloud and col. 6, lines 43 – 60 of Rourke];

making a call to start a session with a remote platform, in response to receiving the task [Establishing a session control block, an internal application program interface memory management area used by the workflow manager during execution of the request's workflow; col. 8, lines 10 – 20 of Cloud];

making a call to put, subsequent to making a call to start a session, which transfers at least a portion of the information in the task to be executed to the remote platform [sending to the host; col. 20, line 55 – col. 21, line 5 of Cloud and one portion of the job may be delivered to a full process color printer (document processing unit 1) and another portion may be delivered to a black/white printer with accent color capability (document processing unit 2); col. 12, line 62 – col. 13, line 10 of Rourke];

making a call to convert, subsequent to making a call to put, which instructs the remote platform to perform a function on the information transferred to the remote platform [a document server for managing conversion of the document job into the on-demand output; col. 5, lines 30 – 67 of Rourke and col. 18, lines 50 – 58 of Cloud];

making a call to get, subsequent to making a call to convert which retrieves the converted information from the remote platform [deliver both the black/white prints and accent colored prints to a job integrator; col. 12, line 62 – col. 13, line 10 of Rourke and col. 11, lines 29 – 42 of Cloud];

repeating each step of making a call to put, convert and get until the task is completed [col. 14, lines 28 – 50 of Cloud and col. 11, lines 33 – 45 of Rourke]; and,

making a call to end the session with the remote platform [Terminates and archives a logical session and, upon signoff, deletes the session control block; col. 8, lines 10 – 24 of Cloud];

wherein each of the above steps are performed by the service provider [server 1050; col. 16, lines 1 – 22 of Cloud]; and

wherein the step of making a call to start a session further comprises creating a unique address which identifies the session [common message header labels all message traffic to and from the Client. It uniquely identifies the requesting Client and associates the unit of work requested with that Client; col. 11, lines 57 – 65 of Cloud] between the service provider and the remote platform [Message Header identifying source and destination of the message; col. 4, line 60 – col. 5, line 8 of Cloud]; and

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the step of making a call to end the session terminates the unique address [Terminates and archives a logical session and, upon signoff, deletes the session control block; col. 8, lines 10 – 24 of Cloud].

11. As to claim 17, Cloud as modified teaches an apparatus for preparing a job for execution by a batch job execution system [batch work flow object generation process; col. 18, lines 51 – 58 of Cloud and col. 6, lines 43 – 60 of Rourke] in parallel [col. 10, lines 5 – 13 of Cloud and Fig. 12; col. 10, lines 10 – 40 of Rourke], comprising:

a client, which is capable of receiving a job from an external source [Receives or retrieves request messages, depending on task initiation; col. 8, lines 42 – 47 of Cloud and col. 6, lines 43 – 60 of Rourke], wherein the job includes a plurality of tasks [decompose the message received and invoke several tasks; col. 11, lines 29 – 42 of Cloud], wherein the client is for:

selecting a program [workflow object which can be selectively incorporated in workflows to satisfy a request from a client; col. 6, lines 30 – 49 of Cloud] which comprises a declarative part [work flow object definition; col. 18, lines 51 – 58 of Cloud] and a procedural part [source code skeleton consistent with its particular function which is used as the infrastructure for creation of object source code; col. 18, lines 8 – 21 of Cloud], wherein the program may be used in executing the job;

preparing a batch job by associating the selected program with the job [workflow Manager will associate the Request with a workflow; col. 12, lines 3 – 17 of Cloud]; and

transmitting the batch job toward the batch job execution system [individual requests which make up the profile of the request from the client are then processed by the work flow manager environment where they are individually packaged for sending to the back-end servers; col. 13, lines 40 – 60 of Cloud];

wherein the declarative part schedules a plurality of tasks to be performed [col. 10, lines 10 – 40 of Rourke], identifies data dependencies between individual tasks [col. 10, lines 5 – 13 of Cloud], and further includes a description of work to be performed [col. 18, lines 50 – 60 of Cloud], references to resources needed to perform particular tasks [map storage areas to data elements and structures (principally in the session control block), for uses by work flows; col. 14, lines 50 – 60 of Cloud], and delegations of authority to access the resources and perform operations [data definition capabilities over the user accessible item areas; col. 11, lines 5 – 18 of Cloud];

wherein the procedural part contains logic enabling the batch job execution system to perform execution of independent individual tasks separately [source code skeleton consistent with its particular function which is used as the infrastructure for creation of object source code; col. 18, lines 8 – 21 of Cloud], in parallel [col. 10, lines 5 – 13 of Cloud]; and

wherein the procedural part does not know about the scheduling contained in the declarative part [To complete a complex unit of work, the work flow will decompose the message received and invoke several tasks to independently retrieve information from whatever different sources are necessary; col. 11, lines 29 – 42 of Cloud], but can specify additional steps that must be performed after the procedural part completes [one

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portion of the job may be delivered to a full process color printer (document processing unit 1) and another portion may be delivered to a black/white printer with accent color capability; col. 12, line 62 – col. 13, line 10 of Rourke] before a particular task is considered to have completed [Work flows contain executable objects that together fulfill the requirements of a request; col. 10, line 65 – col. 11, line 6 of Cloud and col. 12, line 62 – col. 13, line 10 of Rourke].

12. As to claim 4, Cloud teaches the program is selected from a plurality of programs stored in a library, wherein the programs are capable of being executed by the batch job execution system [col. 6, lines 30 – 49].

13. As to claim 5, Cloud teaches receiving a signal from the external source designating the program to be selected [col. 14, lines 28 – 50].

14. As to claim 6, Cloud as modified teaches receiving a first signal from the external source, which identifies the input type of information included in the job [determining that an attribute of the job corresponds with an attribute of a queue; col. 9, line 65 – col. 10, line 10 of Rourke];

receiving a second signal from the external source, which identifies the desired output type of information to be obtained when the job has been executed [step 108; col. 10, lines 10 – 20 of Rourke]; and

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wherein the step of selecting a program is in response to receiving the first and second signal [col. 10, lines 28 – 40 of Rourke].

15. As to claim 7, Cloud as modified teaches determining the input type information included in the received job [col. 9, line 65 – col. 10, line 10 of Rourke];

receiving a signal from the external source, which identifies the desired output to be obtained when the job has been executed [step 108; col. 10, lines 10 – 20 of Rourke]; and

wherein the step of selecting a program is in response to the steps of determining and receiving [col. 10, lines 28 – 40 of Rourke].

16. As to claim 13, Cloud as modified teaches the remote platform is operating on a machine running on a first operating system [col. 4, lines 64 – 67 of Rourke]; and the service provider is operating on a machine running on a second operating system [col. 1, lines 53 – 64 of Cloud].

17. As to claim 36, Cloud teaches the job is a document conversion job [col. 18, lines 51 – 58].

18. As to claim 37, Cloud teaches one or more tasks are performed by one or more services offered by one or more service providers [col. 9, lines 54 – 65].

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19. As to claims 20 – 21, these are rejected for the same reasons as claim 4 – 5 above.

20. As to claims 22 and 23, these are rejected for the same reasons as claims 6 and 7 above.

21. As to claims 27 and 28, these are rejected for the same reasons as claims 11 and 13 above.

22. As to claims 38 and 39, these are rejected for the same reasons as claims 36 and 37 above.

CONTACT INFORMATION

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Li B. Zhen/
Primary Examiner, Art Unit 2194

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Primary Examiner
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